

How large-scale agricultural investments impact social capital



- In brief**
- We analysed the impacts of large-scale agricultural investments (LSAIs) on social capital, which is commonly defined as trust and norms of reciprocity within a group, and on competitiveness of smallholders living near them.
 - Results reveal that smallholders in villages near LSAIs are more trusting than smallholders in control villages further away from the LSAIs. The increased levels of trust are driven by the communal coping strategies adopted by smallholders who are uncertain of the LSAIs' intentions.
 - Our work finds that smallholders who have worked on LSAIs display more trust and reciprocal behavior compared to those who have no such experience. Employee-employer interactions on the LSAI sites likely induce norms of reliability and fairness that are essential for building a good reputation and ensuring repeated mutual benefits.
 - We recommend that information on land rights and boundary demarcations, as well as the intentions of LSAIs, should be made available to smallholders to reduce uncertainty.
 - Government agencies should facilitate and ensure that LSAIs provide standardised, easily understandable work contracts to all employees. These contracts will likely foster fair and productive employer-employee relationships.

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Policy Context

Following the recent global food and fuel crises, Zambia has been among the top recipient countries of agricultural investments. The current National Agricultural Policy (2004-2015) pursued by the government of Zambia welcomes these investments. Investment-friendly policies are based on the premise that the promotion of large-scale agriculture will lead to positive synergies for rural smallholders and agro-processing industries. Proponents of large-scale agricultural investments (LSAIs) argue that LSAIs provide previously unavailable employment and off-farm income opportunities that will result in even greater benefits. However, some civil society organizations and scholars are more skeptical. They argue that LSAIs can have adverse environmental impacts and can lead to smallholder displacement, land expropriation, and worker exploitation. Beyond physically observable measures such as productivity and employment, increased market exposure – brought on by the arrival of LSAIs – also affects competitiveness, communal organisation, and social capital (Bowles, 1998). However, no studies have addressed changes in smallholders’ social capital and competitiveness that may arise from the setup of LSAIs. Our study (Khadjavi et al., 2016) is the first to do so.

Channels through which LSAIs might affect social capital

Since LSAIs operate in a more profit-seeking and market-oriented manner than smallholders, we expected that smallholders’ social capital and preferences may be affected in the following ways:

Individualism	If smallholders observe the way LSAIs put the neighboring land into more intensive use, it changes how they value their land and causes them to become more individualistic and profit-seeking, thereby feeling less attached to their communities.
Communal coping	The establishment of LSAIs may cause uncertainty among smallholders. A given community will band together as they consider ways of dealing with the new entrant.
Reputation	Interactions with LSAIs through employment or contract farming arrangements leads smallholders to adopt traits such as reliability, fairness, and a good reputation that are vital for repeated mutual benefits in formal markets (Arrow, 1972; Hirschman, 1982).
Competitiveness	The willingness to compete is greater in individualistic societies as opposed to collectivistic societies (Leibbrandt et al., 2013). If the exposure to LSAIs increases smallholders’ individualism and commercialization, this motivates them to become more competitive.

Study Implementation

We employed experimental economic methods to elicit social capital and competitiveness of smallholders living near two LSAs in Mumbwa and Mkushi districts, Zambia. We conducted the field work from mid-August to the end of September 2015 with a follow up visit in July 2016. The LSA in Mumbwa is leased by Amatheon Agri and cultivates a tenth of its 30,000 hectare farm. The LSA in Mkushi, which is operated by Chobe Agrivision, is an agglomeration of six different farms that cover an area of more than 4,000 hectares. Our choice of these two investment sites was based on their representativeness, their proximity to Lusaka and to main roads.

Based on village lists and maps obtained from the Central Statistical Office, we randomly selected 29 villages, out of which 15 are located in Mkushi and 14 in Mumbwa. Within each district, we visited villages in a 15 kilometre radius of the LSAs and control villages that lie in a 50 to 70 kilometre radius. This resulted in a sample size of 932 participants.

Figure 1: Randomly selected villages in the Mkushi region

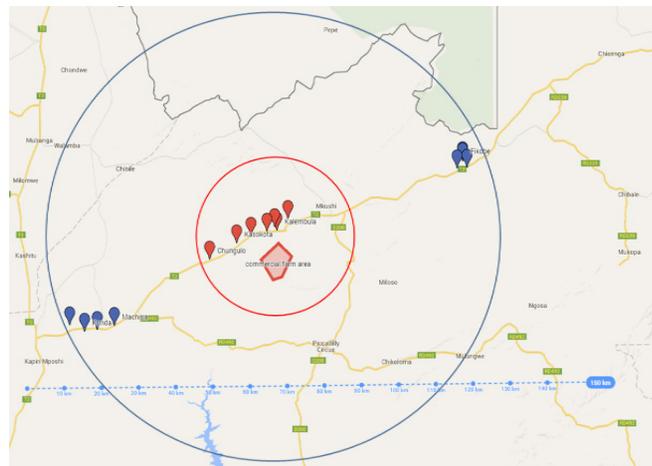
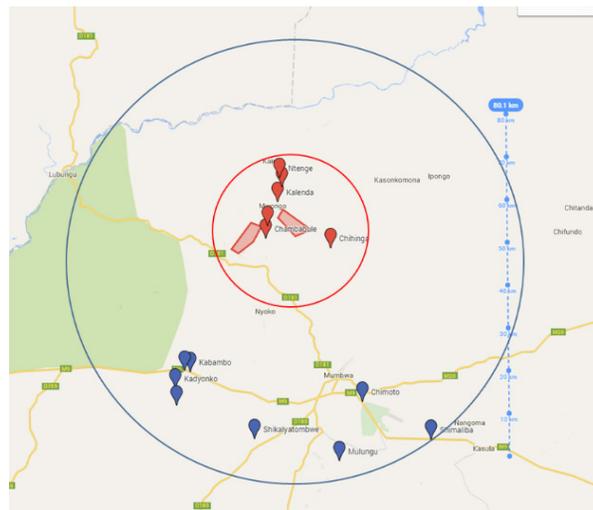


Figure 2: Randomly selected villages in the Mumbwa region



In each village, a minimum of 20 smallholders over the age of 16 participated in an incentivised social dilemma game (Clark and Sefton, 2001). This game was designed in a graphical and easy-to-understand manner that was accessible to literate and illiterate participants alike. It is an established measure of social capital.

As a way of validating the social dilemma game, we gifted each village with a community solar power system in August/September 2015. We left the panels under the authority of the respective village heads who publicly announced that the systems would be shared among community members. In July 2016, we paid unannounced visits to the villages to check whether the solar systems had been used as promised. Equitable governance of public goods is commonly used as a proxy for social capital in studies.

The willingness to compete was elicited through the use of a simple and unfamiliar competition game that required study participants to make a decision on whether to compete or not. This decision and the success in the competition game determined the monetary payments (Gneezy et al., 2009). As a robustness check – and after receiving custodian permission – we ran the same incentivised competition game with 401 children (age 5 to 15) who could win marbles which could be exchanged for toys and books.

The average payment for participation and decisions in all games was 119.72 Zambian Kwacha per person (13.30 USD at the time of the study). This payment is greater than the weekly earnings of most Zambian smallholders and participants took the games very seriously. The experiments were complemented with a survey that collected information on the participants' socio-economic characteristics as well as friendship and financial networks.

Key findings

Social capital

- Smallholders in villages near the LSAs have significantly higher levels of intra-village trust than those further away.
- Smallholders who worked on LSAs exhibit significantly greater levels of trust and reciprocity than those who have never worked on an LSA before.
- Smallholders living in villages next to LSAs used the solar power systems (public goods) in a more equitable manner than those further away.

Competitiveness

- Smallholders in villages near the LSAs are significantly more competitive than those further away.
- Children in villages near the LSAs behaved significantly more competitively than children in villages that are further away.
- Females in villages near the LSAs, both adults and children, show greater competitiveness than those in villages further away. The commonly observed gender gap in competitiveness thereby closed completely in villages near the LSAs.

Recommendations

The results of this study confirm the need to consider taking a more holistic approach towards analysing the impacts of LSAs on surrounding communities. Our finding – that smallholders who live near LSAs exhibit greater trust, reciprocity, and competitiveness – provides quantitative evidence for externalities from LSAs. Qualitative interviews confirm that *communal coping* drives one part of our results. Uncertainty causes smallholders in the villages next to LSAs to increase the frequency of meetings and to band together. Based on this, we recommend the following:

1. Smallholders should be provided with official, reliable and written information on their land rights and boundary demarcations before the LSA is established.

This will reduce smallholders' uncertainty when a LSA is established in their vicinity. The presence of a LSA may still lead smallholders to jointly discuss how to deal with the investor; however, increased transparency will reduce their need to band together out of adversity or uncertainty.

2. Legally recognised titles should be provided to smallholders who live in the proximity of LSAs.

Smallholders' uncertainty can be reduced further through the provision of legally recognised customary titles. Currently, obtaining a title is only possible for state land. Converting customary land to state land is a very expensive and a complicated process that many smallholders cannot afford. For instance, less than 10% of smallholders in our study hold land titles. Reducing the costs of obtaining titles for smallholders will increase their tenure security and will reduce uncertainty that is associated with the establishment of LSAs.

In addition, there is evidence that *reputation building* drives another part of our results. Reputation building helps LSA workers increase their chances of permanent employment and workplace promotion. We find that smallholders who have worked on the farm tend to internalise norms of cooperation. Since the effects of direct interactions with LSAs persist even when the LSA employees return to their communities, we can confirm a positive externality on social capital in village communities.

3. All employment offered by all LSAs should be based on a standardised and universal written work contract for each employee.

Work contracts need to contain all important information regarding the employment (wage per time period, number of daily hours, etc.) in a comprehensible manner. Both parties have to receive a signed copy of the contract. Such a regulation is easy to implement, easy to monitor, and profits those LSAs which already use recognised employment and contract standards. The regulation ensures fair treatment of all smallholders who work on LSAs. Written and dependable work contracts will reinforce reliability of the employer-employee relationship, create attitudes of trust and positive reputation building and thereby enhance productivity and welfare.

Further Reading

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